

S/076/61/035/001/010/022  
B004/B060

Cathodic polarization at a joint ...

and 5 Soviet-bloc references.

ASSOCIATION: Leningradskiy tekhnologicheskii institut im. Lensoveta  
(Leningrad Institute of Technology imeni Lensovet)

SUBMITTED: May 6, 1959

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S/076/61/035/001/010/022  
B004/B060

Cathodic polarization at a joint ...

Table 1

Выделенный компонент (3)	pH	25°		40°		55°		70°	
		a	α	a	α	a	α	a	α
Fe	3,5	0,620	0,49	0,566	0,56	0,500	0,62	0,445	0,75
	1,8	0,630	0,48	0,572	0,50	0,525	0,50	0,478	0,69
	1,5	0,659	0,43	0,585	0,54	0,535	0,50	0,500	0,54
Co	3,5	0,627	0,41	0,560	0,46	0,517	0,48	0,442	0,60
	1,8	0,656	0,37	0,583	0,46	0,557	0,38	0,493	0,43
	1,5	0,710	0,33	0,608	0,44	0,557	0,38	0,520	0,37
H <sub>2</sub>	1,8	0,634	0,50	0,629	0,50	0,620	0,50	—	—
	1,5	0,592	0,50	0,577	0,50	0,563	0,50	—	—

Legend to Table 1. a) liberated component

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ROTINYAN, A.L.

Relation between the overall and partial polarization curves in the cathodic formation of an alloy. Zhur. fiz. khim. 35 610-611 Mr '61.

1. Leningradskiy tekhnologicheskii institut im. Lensovet.  
(Polarization(Electricity)) (Alloys) (Electroplating)

ROTINYAN, Aleksandr Leonovich, doktor tekhn. nauk; OVCHINNIKOVA,  
Tamara Mikhaylovna, inzh.; KHEYFETS, V.L., red.; FREGER,  
D.P., red.izd-va; BELOGUROVA, I.A., tekhn. red.

[Measuring acidity in the cathode layer during the electro-  
lysis of aqueous solutions] Izmerenie kislotnosti v prika-  
todnom sloe pri elektrolize vodnykh rastvorov. Leningrad,  
1962. 18 p. (Leningradskii dom nauchno-tekhnicheskoi pro-  
pagandy. Obmen peredovym opytom. Seriya: Zashchitnye pokrytiia,  
no.7) (MIRA 16:3)

(Electrolysis) (Hydrogen-ion concentration)

FEDOT'YEV, N.P., prof., doktor khim. nauk; BIBIKOV, N.N.;  
VYACHESLAVOV, P.M.; GRILIKHES, S.Ya.; ALAAYSHEV, A.F.,  
doktor tekhn.nauk, prof., retsenzent; ROTINYAN, A.L.,  
doktor tekhn.nauk, prof., red.; LEYKINA, T.L., red.izd-  
va; CHFAS, M.A., red.izd-va; PETERSON, M.M., tekhn. red.

[Electrolytic alloys]Elektroliticheskie splavy. Pod red.  
N.P.Fedot'eva. Moskva, Mashgiz, 1962. 311 p.

(MIRA 15:11)

(Electroplating) (Alloys)

FEDOT'YEV, N.P., prof.; ALABYSHEV, A.F.; ROTINYAN, A.L.; VYACHESLAVOV,  
P.M.; ZHIVOTINSKIY, P.B.; GAL'NBEK, A.A.; MORGACHEVSKIY, A.G.,  
red.; ERLIKH, Ye.Ya., tekhn. red. .

[Applied electrochemistry] Prikladnaia elektrokimiia. Lenin-  
grad, Goskhimizdat, 1962. 638 p. (MIRA 15:12)  
(Electrochemistry)

GUSEVNIKOV, T.M.; TARAN, I.A.; ROTINYAN, A.L.

Change of acidity in the catholyte layer during electrolysis  
of nickel chloride solutions. Zhur. fiz. khim. 36 no.9:1909-  
1913, S. 162. (MIRA 17vo)

1. Katedra elektrokhemii Leningradskogo tekhnologicheskogo  
instituta imeni Lensoвета.

ROTINYAN, A. L.; SYSOYEVA, V. V.

Cathodic polarization in iron electrodeposition. Izv. vys.  
ucheb. zav.: khim. i khim. tekh. 5 no.5:782-787 '62.  
(MIRA 16:1)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta,  
kafedra elektrokhemii.

(Iron plating) (Polarization(Electricity))

GAL'NBEK, A.A.; ROTINYAN, A.L.

Investigating the effect of various factors on current efficiency  
in the electrolysis of fused lead chloride. Zhur.prikl.khim. 35  
no.4:787-795 Ap '62. (MIRA 15:4)

1. Kafedra elektrokhemii Leningradskogo tekhnologicheskogo instituta  
imeni Lensoвета.

(Lead chloride) (Electrolysis)

S/080/62/035/006/011/013  
D204/D307

AUTHORS: Gal'nbeck, A.A. and Rotinyan, A. L.  
TITLE: The mechanism of metallic losses in electrolysis of fused salts

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 6, 1962, 1314-1322

TEXT: The lowering of current efficiency of Pb and Zn, in the electrolysis of  $PbCl_2$  and  $ZnCl_2$  respectively were determined in relation to current density (D) and temperature, under various conditions, to explain the mechanism of such losses. The latter increased linearly with D between 0 - 0.32 A/cm<sup>2</sup> and were also higher at higher temperatures; e.g. for Pb at 0.24 A/cm<sup>2</sup>, losses were  $\sim 10^{-4}$  g.atom/cm<sup>2</sup> of cathode hr at 550°C, rising to  $\sim 11 \times 10^{-4}$  at 750°C. The losses occurring when D = 0 are ascribed to a "mechanical" cause, specifically to the dissolution of metal in the melt, transport to the surface and volatilization or oxidation. The extent of

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the melt,  
the mixed va-

...ukhimi Leningradskogo ...

The mechanism of ...

S/080/62/035/006/011/013  
D204/D307

kogo instituta imeni Lensovet (Department of Electro-  
chemistry of the Leningrad Technological Institute  
imeni Lensovet)

SUBMITTED: July 22, 1961

Card 3/3

ROTINYAN, A.L.; ZEL'DES, V.Ya.; SHOSHINA, I.A.

Carbon in electrolytic nickel. Zhur.prikl.khim. 35 no.7:1542-  
1546 JI '62. (MIRA 15:8)  
(Nickel plating) (Carbon--Analysis)

S/080/62/035/011/003/011  
D287/D307

AUTHORS: Sysoyeva, V.V., and Rotinyan, A.L.  
TITLE: The effect of chlorine ions on the kinetics of the  
cathodic deposition of an iron - nickel alloy  
PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 11, 1962,  
2430 - 2435

TEXT: The present investigation was carried out because of the absence of information regarding the effect of Cl<sup>-</sup> ions on the kinetics of cathodic deposition of an Fe-Ni alloy during gradual transition from the sulphate to the chloride electrolyte. Sulphate, sulphate - chloride and chloride electrolytes, containing 1.06 mole Ni/l and 0.19 mole Fe/l, were used. The experiments were carried out in a 200 ml glass cell, in a water bath maintained at 25°C. The pH of the solutions was controlled with a glass electrode and maintained at pH 3 (± 0.2). Total and partial polarization curves were plotted for each electrolyte. The alloys were analyzed for their Fe-content and, if required, for the Ni-content (using Trilon B). It was found that the Fe-content in the alloy increased (under the  
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The effect of chlorine ions on ...

S/O<sup>RO</sup>/62/035/011/003/011  
D287/D307

given experimental conditions) with increasing  $D_c$  (cathodic current density) at low current densities; it reached a maximum and then started to decrease slightly. On transition from the sulphate to the chloride electrolytes the layer and, consequently, also the coefficient of coarseness of the surface were found to increase. Substitution of  $SO_4^{2-}$  ions by  $Cl^-$  in the electrolyte resulted in a displacement of the total as well as of the partial polarization curves of the Fe and Ni separation. The partial polarization curves were used for calculating the adsorption potential which is observed during the deposition of the alloy from the chloride electrolyte. The calculated value is in good agreement with literature data determined by other methods. There are 8 figures and 3 tables. ✓

ASSOCIATION: Kafedra elektrokhemii Leningradskogo tekhnologicheskogo instituta imeni Lensoveta (Department of Electrochemistry of the Leningrad Technical Institute imeni Lensoveta)

SUBMITTED: February 16, 1962

Card 2/2

S/080/62/035/012/004/012  
D444/D307

AUTHORS: Sysoyeva, V.V. and Rotinyan, A.L.  
TITLE: Depolarization and overpolarization effects in the formation of an Fe-Ni electrodeposited alloy  
PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 12, 1962, 2653-2661

TEXT: The present investigation was devoted to the study of the mechanism of electrodeposition of iron-nickel alloys from sulphate electrolytes. Electrolysis was carried out under various conditions, the alloys produced being analyzed and polarization curves being obtained (both by the ordinary and the potentiostatic method). Mixed electrolytes contained 1.25 moles ( $\text{Fe}^{2+} + \text{Ni}^{2+}$ ) per liter. For a given electrolyte and temperature the potential was a linear function of the logarithm of current density. The slope of the line is given by  $1/\alpha$ : for the mixed deposition this is equal to the sum of half the slopes for the separate depositions. With high nickel and very low iron concentration nickel is deposited

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Depolarization and overpolarization ... S/080/62/035/012/004/012  
D444/D307

preferentially: as iron concentration rises the polarization curves first merge and then reverse their position. With increasing temperature the partial polarization curves of nickel and iron move in the direction of electro-positive potential; at 25-40°C the movement is about equal, but on increasing temperature to 70°C the nickel curve moves more and the alloy is enriched in nickel. For iron, depolarization occurs on discharge into the alloy, and this increases with rising temperature. For nickel, overpolarization occurs, but this practically disappears as the temperature rises to 70°C. These effects are associated with the alloy crystal-lattice structure and when two crystal lattices exist the values of overpolarization for nickel and depolarization for iron are independent of alloy composition. However, the effects cannot be fully explained solely by the change in crystal-lattice structure depending on alloy composition. There are 10 figures and 3 tables.

ASSOCIATION: Kafedra elektrokhemii LTI im. Lensovet (Department of Electrochemistry of the LTI im. Lensovet)  
SUBMITTED: January 8, 1962  
Card 2/2

SYSOYEVA, V.V.; ROTINYAN, A.L.

Calculation of depolarization and superpolarization effects in  
the formation of a galvanic alloy. Dokl. AN SSSR 144 no.5:  
1098-1099 Je '62. (MIRA 15:6)

1. Leningradskiy tekhnologicheskii institut imeni Lenosoveta.  
Predstavleno akademikom A.A.Grinbergom.  
(Alloys) (Polarization (Electricity))

L 17903-63 EWP(q)/EWT(m)/BDS AFPC MJW/JD  
ACCESSION NR: AP3003770 s/0080/63/036/006/1291/1296

AUTHORS: Simonov, G. A.; Smirnova, L. K.; Rotinyan, A. L. 57

TITLE: Cathode polarization during precipitation of tellurium from alkali solutions 27

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 6, 1963, 1291-1296

TOPIC TAGS: cathode polarization, tellurium, alkali solution

ABSTRACT: Investigation of cathode polarization during precipitation of tellurium from an alkali electrolyte at different temperatures, concentration of tellurium and concentration of alkali in electrolyte - shows that, with an increase of alkali concentration in the electrolyte, the effective current decreases and increases with a rise in temperature. In alkali-concentrated electrolyte effective current linearly depends on concentration of tellurium in electrolyte. In diluted electrolyte, the increase of effective current takes place faster. It is assumed that cathode process depends on the change of the nature of ions. Orig. art. has: 8 figures, 2 formulas and 1 table.

ASSOCIATION: Leningradskiy tekhnologicheskii institut imeni Lensoveta (Leningrad Technical Institute.)

Card 1/1

OVCHINNIKOVA, T.M.; PLEKHOV, I.M.; ROTINYAN, A.L.

Oscillographic measurement of the pH value in a cathode layer.  
Zhur.prikl.khim. 36 no.6:1350-1352 Ja '63. (MIRA 16:8)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta.  
(Hydrogen-ion concentration) (Electrodes) (Oscillography)

KOZHEVNIKOVA, N.M.; ROTINYAN, A.L.

Overvoltage of hydrogen evolution on tantalum. Zhur. prikl.  
khim. 36 no.9:1950-1955 D '63. (MIRA 17:1)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta.

OVCHINNIKOVA, T.M.; ROTINYAN, A.L.

Measurement of acidity in the cathodic layer by the glass  
electrode method. Zhur.fiz.khim. 37 no.2:443-444 F '63.

(MIRA 16:5)

1. Leningradskiy tekhnologicheskij institut imeni Lensoveta.  
(Hydrogen-ion concentration) (Nickel chloride)  
(Electrodes glass)

L 18310-63

EWP(□)/EWT(m)/BDS AFFTC/ASD/ESD-3 RH/JD/JG

ACCESSION NR: AP3004977

S/0076/63/037/008/1818/1824

AUTHORS: Rotinyan, A. L.; Kozhevnikova, N. M.

63  
61

TITLE: Electrochemistry of niobium. 1. Overvoltage of hydrogen evolution on niobium.

16 27

SOURCE: Zhurnal fiz. khimii, v. 37, no. 8, 1963, 1818-1824.

TOPIC TAGS: electrochemistry, niobium, hydrogen, slow discharge theory.

ABSTRACT: The effect of surface current, temperature, and acid concentrations on overvoltage during evolution of hydrogen on niobium was studied. The relation between the degree of electrode saturation and amount of overvoltage is explained. Hydrogen overvoltage on niobium is shown to diminish and the parameter of the crystal lattice to increase as the metal is saturated with hydrogen. The hydrogen overvoltage assumes a steady value after formation of the Beta-phase with lattice parameters  $a = 3.44-3.45 \text{ \AA}$ . This is attained by long term cathodic polarization. The dependence of the overvoltage upon  $\lg i_k$  and upon the pH of the solution is in conformity with the slow discharge theory. The temperature coefficient of hydrogen overvoltage at moderate current densities is 1-1.5 mv/degree. The

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L 18310-63

ACCESSION NR: AP3004977

hydrogen exchange current and the standard hydrogen exchange current on niobium, as well as the activation energy of hydrogen discharge at the equilibrium potential have been calculated. "We are very grateful to O. M. Danilovich who provided the X-ray analysis." Orig. art. has: 7 figures, 2 tables, 2 equations.

ASSOCIATION: Leningradskiy tekhnologicheskii institut im. Lensoveta (Leningrad technological institute).

SUBMITTED: 22Aug61

DATE ACQ: 06Sep63

ENCL: 00

SUB CCDE: CH

NO REF SOV: 009

OTHER: 001

Card 2/2

SIMONOVA, M.M.; OSTYAN, A.L.

Mechanism of the cathodic deposition of cobalt. Zhur. prikl.  
khim. 37 no.9:1961-1958. S 161.

(MIRA 17:10)

Leningradskiy tekhnologicheskij institut imeni Lensoвета.



SHOSHINA, I.A.; ROTINYAN, A.I.

Inclusion of certain impurities in the cathodic deposit during the electrolytic preparation of high-purity nickel. TSvet. met. 37 no.10:20-26 0 '64.  
(MIRA 18:7)

ROTINYAN, A.L.; OVCHINNIKOVA, T.M.; SIMONOVA, M.V.; SYSOYEVA, V.V.

Dependence of the degree of alkalization of the cathode electrolyte layer on the current density. Zhur. fiz. khim. 38 no.12: 2966 D '64. (MIRA 18:2)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta.

ROTINYAN, A.L.; ICPE, E.Sa.

Effect of conditions of electrolysis on the content of gases in  
electrolytic nickel. TSvet. met. 37 no.11:42-46 N '64. (MIRA 18:4)

ROTYNAN, A.L.; SHOSHINA, I.A.

Mechanism of the reaction of cobalt hydroxide precipitation.  
Izv. vys. ucheb. zav.; tsvet. met. 7 no.6:56-63 '64.

(MIRA 18:3)

1. Leningradskiy tekhnologicheskii institut, kafedra elektrokhi-  
micheskikh proizvodstv.

L 39756-65 EWT(m)/EWP(t)/EWP(z)/EWP(b) Pad IJP(c) JD/HW  
ACCESSION NR: AP4047422 S/0136/64/000/010/0020/0026

AUTHORS: Shoshina, I.A.; Rotinyan, A.L. 17  
B

TITLE: The inclusion of certain impurities in the cathode deposit during the electroextraction of high-purity nickel

SOURCE: Tsvetny\*ye metally\*, no. 10, 1964, 20-26 16 27

TOPIC TAGS: nickel, electroextraction, cathode deposit, impurity, electrolyte, flow rate viscosity, convective diffusion

ABSTRACT: The authors discuss the maximum concentration of Pb, Sb, Bi, Tn, As and Zn in the electrolyte permissible in the electro-winning of highest purity Ni under different conditions of electrolysis. They suggest a method which makes it possible to compute these concentrations readily and accurately. They contend that each microgram of impurity per liter of electrolyte leads to the formation of 0.00007% (at.) impurity. Consequently, if the desired critical content of an impurity were to be a maximum 0.0001% (weight), its content in the electrolyte would have to be a maximum 0.04 mg/l for Pb, Sn, Zn, Sb and 0.03 mg/l for Bi and As. The electrolyte in

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L 39756-65

ACCESSION NR: AP4047422

all tests was composed of 60 g/l Ni (NiSO<sub>4</sub>); 40 g/l Na<sub>2</sub>SO<sub>4</sub>; 50 g/l NaCl; 5 g/l H<sub>3</sub>BO<sub>3</sub>; pH = 2.3 to 2.4. The rate of flow of the electrolyte influenced the purity of the cathode deposit rather conspicuously. The authors investigated its effect and the circulation rate was varied from 20 to 150 ml/amp·hr. The cathode current density was 240 amp/m<sup>2</sup> and the cathode cell temperature 60°C. Experimental results coincided with calculations: all investigated specimens discharged at a critical current in the electroextraction of Ni from a sulfate - chloride electrolyte. With a circulation rate of 80 ml/amp·hr the effect on the rate of flow was less appreciable. Apparently, the factors which lower the velocity constant of convective diffusion lower the amount of impurities in the cathode deposit. The greater the electrolytic viscosity, the lower the constant of the rate of convective diffusion and the lower the rate of the inclusion of impurities in the cathode deposit. It follows that an increase in the electrolyte viscosity enhances the purity of the metal. Observations of the behavior of the impurities under the effect of temperatures showed that their contents in the deposit increases at raised temperatures. Orig. art. has: 5 figures, 2 tables and 7 equations.

Card 2/3

ROZINYAN, A.L.; BIKONOVA, M.V.

Cathodic-anodic behavior of the cobalt electrode in cobalt  
sulphate solutions at different temperatures. Elektrokhimiya  
1 no.13:1407-1415 D '65. (MIRA 19:1)

L. Leningradskiy tekhnologicheskii institut imeni Lensoвета.

SIMONOVA, M.V.; ROTINYAN, A.L.

Mechanism of the process of cathodic evolution of hydrogen in a simultaneous discharge of hydrogen and cobalt ions. *Elektrokhimiya* (MIRA 19:1)  
2 no.1:88-92 Ja '66.

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.  
Submitted December 26, 1964.

BOGIRYAN, A.I.; KHEYFETS, V.L.; ZHIVOTINSKIY, P.B.

Contribution to the theory of electrolysis of alkali metal chlorides  
in baths with a filtering diaphragm. Zhur. prikl. khim. 38 no.1:78-  
83 Ja '65. (MIRA 18:3)

L 59536-63 EWT(m)/EPF(c)/EWP(w)/EPF(n)-2/EWA(d)/T/EWP(t)/EWP(b) Pr-4/Pu-4  
IJP(c) JD/JG

ACCESSION NR: AP5016823

UR/0364/65/001/006/0664/0668  
541.138.3:546.11

40  
39  
B

AUTHOR: Kozhevnikova, N. M.; Rotinyan, A. L.

TITLE: Additional data concerning overvoltage during evolution of hydrogen on niobium and tantalum

SOURCE: Elektrokhimiya, v. 1, no. 6, 1965, 664-668

TOPIC TAGS: overvoltage, hydrogen evolution, niobium, tantalum

ABSTRACT: Hydrogen overvoltage, microhardness, and capacitance of the double layer on niobium and tantalum were studied with respect to duration of cathode polarization using a PMT-3 oscillograph. Overvoltage on the niobium cathode was measured at 25°C in 1N H<sub>2</sub>SO<sub>4</sub> solution as a function of polarization duration. The current densities (*i*) were (a/m<sup>2</sup>): 50, 100, 250, 500, and 1000. For all these current densities the dependence exhibited a steplike character. A drop in overvoltage occurred after about 5-6 hours of polarization at *i* = 50 a/m<sup>2</sup> and after 0.5 hour at 1000 a/m<sup>2</sup>. During 96 hour polarization at *i* = 100 a/m<sup>2</sup> in 1N H<sub>2</sub>SO<sub>4</sub> solution at 25°C the microhardness of niobium increased from 200 to 300 kg/mm<sup>2</sup> and that of tantalum from 290 to 380 kg/mm<sup>2</sup>. In all cases microhardness levelled off after a raise in the

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L 59536-65

ACCESSION NR: AP5016823

initial period. This was reflected in constancy of overvoltage and lattice parameter (from about  $10^{-15}$  to 50 hours of polarization). The double layer capacitances of niobium (50-60  $\mu\text{f}$ ) and tantalum (10-15  $\mu\text{f}$ ) increased sharply and then levelled off after 30-40 hours of polarization at about 80  $\mu\text{f}$  and 24  $\mu\text{f}$  respectively. Orig. art. has: 2 tables, 3 figures.

ASSOCIATION: Leningradskiy tekhnologicheskii institut im. Lensoveta (Leningrad Institute of Technology)

SUBMITTED: 02Aug64

ENCL: 00

SUB CODE: CC

NO REF SOV: 009

OTHER: 000

*llc*  
Card 2/2

L 9590-66 EWT(m)/EWP(w)/ETC/EWG(m)/T/EWP(t)/EWP(h)/ETC(m) DS/JD/WW/WB/EM  
 ACC NR: AP6000011 SOURCE CODE: UR/0080/65/038/011/2628/2628

AUTHOR: Rotinyan, A. L. 90

ORG: none 86

TITLE: Intervuz conference on electrochemistry B

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 11, 1965, 2628

TOPIC TAGS: chemical conference, electrochemistry, corrosion, electrode

ABSTRACT: <sup>44,55</sup> The Fourth Intervuz Conference on Electrochemistry was held from 31 May to 2 June 1965 at the Novocherkassk Polytechnical Institute under the joint sponsorship of the Ministry of Higher and Vocational Secondary Education, RSFSR, and the All-Union Chemical Society. About 260 papers were presented in fields of theoretical and applied electrochemistry. There were more than 450 participants at the Conference, representing vuzes of the Soviet Union, scientific research institutes of the Academy of Sciences USSR and of Union Republics, and specialized scientific research institutes. Three papers were singled out as the most interesting: A. I. Krasil'shchikov (Moscow). "Theory and applications of the oxygen electrode."; L. I. Antropov (Kiev). "Theoretical aspects of the action of corrosion inhibitors."; M. F. Skalozub <sup>44,55</sup> together with a team of scientists under his direction (Novocherkassk Polytechnical Institute). "Application of sound vibrations and alternating magnetic field in electrochemical technology." (This topic attracted special attention and was reported in Izvestiya on 3 Jun 1965 as a new and very promising field of

Card 1/2 UDC: 006.3

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L 9590-66

ACC NR: AP6000011

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electrochemistry). Other papers were presented and discussed at meetings of the sections on power sources, corrosion, electrolysis (other than metal deposition, hydroelectrometallurgy, and galvanotechniques. General directions for research work were issued by the Conference, and the next conference was tentatively scheduled for 1967 at the Dnepropetrovsk Chemicotechnological Institute.

✓ [MTD Press: 4141-E]

11,55

SUB CODE: 07 / SUBM DATE: none

*beb*  
Card 2/2

SHENKIN, A.L.; SHAMINA, L.P.; NYU, U.S.A.

Effect of hydrodynamic factors on the regularities of a  
simultaneous deposition of main metal ions and impurity  
cations discharged at a limiting current. Zhur. prikl.  
khem. 38 no.4:811-816, Apr '65.

(MIRA 18:6)

I. Leninskaya St. All-Union Academy of Sciences  
Institute of Electrochemistry.

KOZHEVNIKOVA, N.M.; ROTINYAN, A.L.

Additional data on overvoltage during hydrogen evolution on niobium  
and tantalum. Elektrokimiia 1 no.6:664-668 Je '65. (MIRA 18:7)

1. Leningradskiy tekhnologicheskij institut imeni Lensoveta.

SIMONOVA, M.V.; ROTINYAN, A.L.

Stepwise reactions in electrochemical kinetics. Usp.khim. 34  
no.4:734-754 Ap '65. (MIRA 18:8)

1. Leningradskiy tekhnologicheskij institut imeni Lensoveta.

ROTINYAN, A.L.

Interuniversity Conference on Electrochemistry in Novo-  
cherkassk. Zhur.prikl.khim. 38 no.11:2625 N 165. (MIRA 18:12)

ROTINYAN, A.L.

Some possible mechanisms of the process of cathodic hydrogen evolution in an acid medium. Elektrokimiia 1 no.10:1303-1304  
0 '65. (MIPA 18:10)

1. Leningradskiy tekhnologicheskij institut imeni Lensoveta.

L 08455-67 EWI(m)/EWP(L)/ETI IJP(c) DS/JD/JG

ACC NR: AP6030898

(A)

SOURCE CODE: UR/0080/66/039/008/1742/1747

49  
48B

AUTHOR: Ostrovidov, Ye. A.; Rotinyan, A. L.

ORG: Leningrad Technological Institute imeni Lensovet (Leningradskiy tekhnologicheskii institut)

1 11

TITLE: Rate of hydrogen ionization on a half-immersed platinum electrode in an alkali hydroxide solution

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 8, 1966, 1742-1747

TOPIC TAGS: electric polarization, hydrogen, ionization, electrolyte

ABSTRACT: The object of the work was (1) to determine the polarization at an edge point of a half-immersed electrode and (2) study the influence of surface-active admixtures on the rate of hydrogen ionization. The upper part of the platinum wire electrode employed was in a hydrogen atmosphere, and the lower part was immersed in 7 N KOH. The derivative of the polarization of the edge point was found to increase with the polarization of the immersed part over a wide polarization range; this is attributed either to the fact that the electrolyte film becomes thinner in the dry part or to an increase in the density of the ionization current. It is shown that in the case of high polarizations, the series of experimental data obtained does not correlate with a film mechanism of hydrogen ionization. The data can be explained either in terms of kinetic hindrances caused by the slowness of the electrochemical stage,

UDC: 541.13

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L 08455-67

ACC NR: AP6030898

or, preferably, by the fact that the ionization of hydrogen does not occur on the entire surface of the electrode, but only on active centers. The factor determining the ionization rate is the supply of hydrogen to the active centers both through the electrolyte film and by migration in the  $\sigma$  phase of the electrode (from adsorption centers to ionization centers). In conclusion, authors thank V. S. Daniel'-Bok for a useful discussion of a number of problems touched upon in the study. Orig. art. has: 4 figures, 2 tables and 11 formulas.

SUB CODE: 07/ SUBM DATE: 19Jun65/ ORIG REF: 003/ OTH REF: 002

Card

2/2 *egh*

ROTINYAN, L.A.

Thermodynamic study of certain laws of heterogenic equilibrium in ternary systems. Pt. 2. Izv.Sekt.fiz.-khim.anal. 17:64-72 1949.  
(MLBA 7:6)

1. Khimicheskiy institut Akademii nauk Armyanskoy SSR.  
(Thermodynamics) (Phase rule and equilibrium)

RCTINYAN, I. A.

Cams

"Dynamic synthesis of twin cam mechanisms," Trudy Sem. teor. mash. 10 no. 40, 1951.

Monthly List of Russian Accessions, Library of Congress, October 1952, UNCLASSIFIED.

Rotinyan, L. A.

Rotinyan, L. A. Construction of the positions of spatial  
three-link mechanisms. Akad. Nauk SSSR. Trudy Sem.  
Teorii Mashin i Mehanizmov 14, no. 53, 11-19 (1953).  
(Russian)



ROTINYAN, L. A.

U S S R .

914. Rotinyan, L. A., Plotting three-dimensional, three-  
membered mechanism (in Russian), Akad. Nauk SSSR Trud  
Sci. Teor. Mash. Mekh. 14, 53, 11-19, 1963.

L 5311-66 EWT(d)/Ewr(1) LJP(c) BC

ACC NR: AP5025695

SOURCE CODE: UR/0286/65/000/018/0043/0044

INVENTOR: Svecharnik, D. V.; Rotinyan, M. I.; Shidlovich, L. Kh.; Pavlenko, V. A.; Kelim, Yu. M.

ORG: none

TITLE: Servosystem driven with d-c signals [Announced by the Scientific Research Institute of Heat- and Power-Engineering Equipment, (Nauchno-issledovatel'skiy institut teploenergeticheskogo priborostroyeniya). Class 21, No. 174687

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 43-44

TOPIC TAGS: signal processing, signal analysis, data processing equipment

ABSTRACT: This Author Certificate introduces a servosystem driven with d-c signals (see figure). For simplicity and improved reliability, the stator winding of the

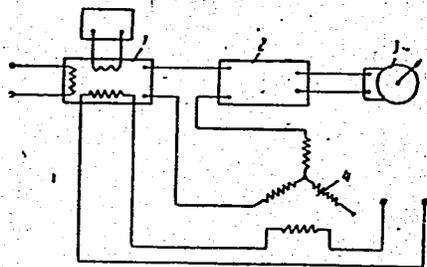


Fig. 1. Signal converter

- 1 - Push-pull magnetic modulator;
- 2 - a-c power amplifier; 3 - re-
- versible motor; 4 - feedback pickup.

Card 1/2

UDC: 62-503.53  
62-523.2

09010784

E 5311-66

ACC NR: AP5025695

transmitting selsyn and the power supply winding of the magnetic modulator are series connected, while the winding of the selsyn rotor is connected in series with the modulator output. Orig. art. has: 1 figure. [DW]

SUB CODE: IE,EE SUBM DATE: 18May64/ ATD PRESS: 4/35 000



Card 2/2

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DD DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TT TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UU UV UW UX UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VU VV VW VX VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WU WV WW WX WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XX XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YU YV YW YX YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW ZX ZY ZZ

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

7

B

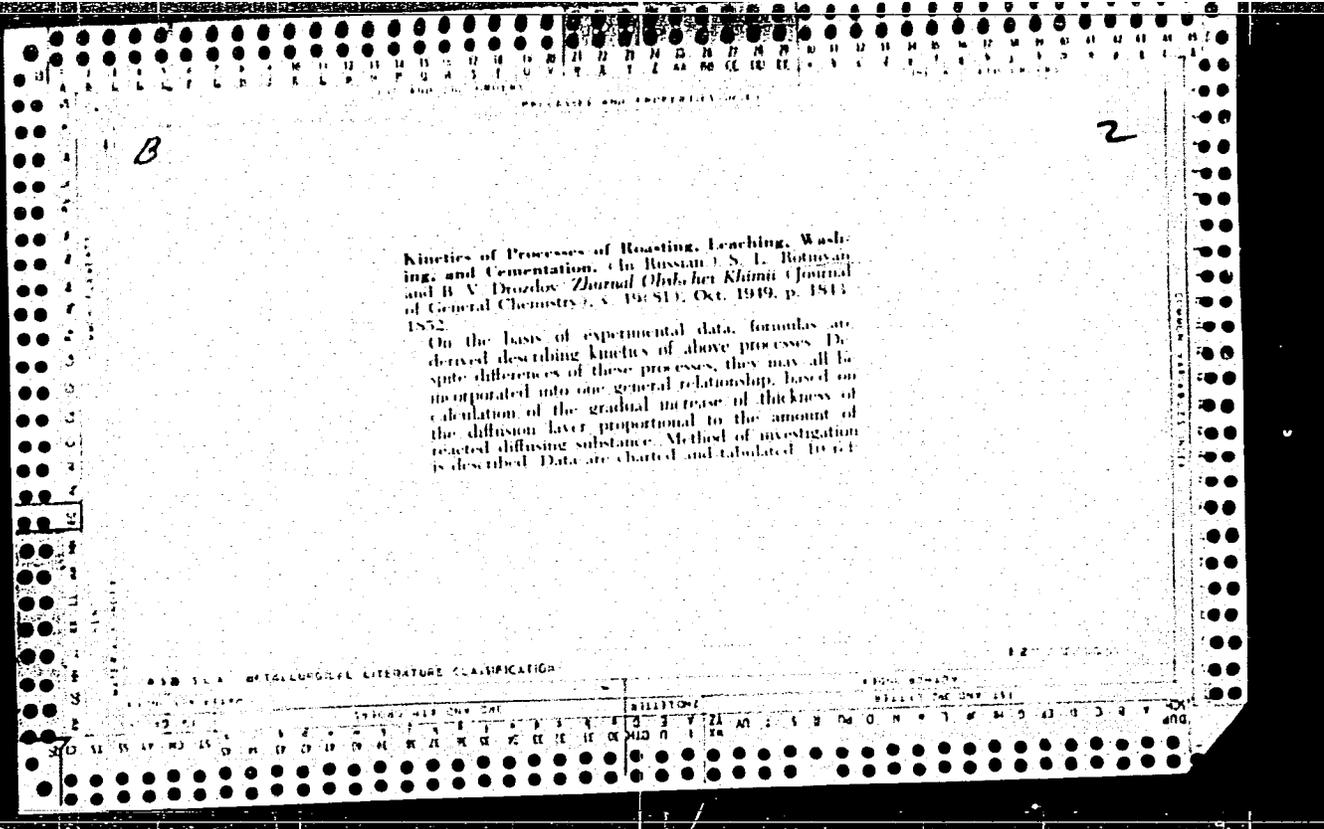
47-B. Kinetics of Processes of Roasting, Leaching, Washing, and Cementation. (In Russian.) B. L. Rotinyan and B. V. Drosdov. *Zhurnal Obshchei Khimii* (Journal of General Chemistry), v. 19(81), Oct. 1949, p. 1843-1852.

Formulas are derived. Despite differences of these processes, they may all be incorporated into one general relationship, based on calculation of the gradual increase of thickness of the diffusion layer proportional to the amount of reacted diffusing substance. 10 ref. (B general)

35-55 A METALLURGICAL LITERATURE CLASSIFICATION

35-55 A METALLURGICAL LITERATURE CLASSIFICATION

35-55 A METALLURGICAL LITERATURE CLASSIFICATION



ROTINYAN, Ye.A.

Manufacture of dyes in capitalistic countries. Khim. nauka i prom.  
3 no.2:263-267 '58. (MIRA 11:6)

(Dyes and dyeing)

DOBROVOL'SKIY, S., inzh.; PAL'GIN, V., inzh.; BIRILOV, O., inzh.;  
IVASHCHENKO, A., inzh.; RABINOVICH, S., inzh.; ROTINYANTS, A., inzh.;  
SYROVATKINA, K., starshiy inzh.

Letters to the editor. Stroitel' no.11:11 N '60. (MIRA 13:11)

1. Trest Stalinzhilstroy No.1 (for Syrovatkina).  
(Construction industry)

ROTYNANTS, A.A.

Heat and moisture treatment of prestressed bridge spans. Izv.  
AN Arm. SSR. Ser. tekhn. nauk 18 no. 2:66-67 '65. (MIRA 18:12)

1. Rostovskiy institut inzhenerov zheleznodorozhnogo transporta.  
Submitted Jan. 5, 1965.

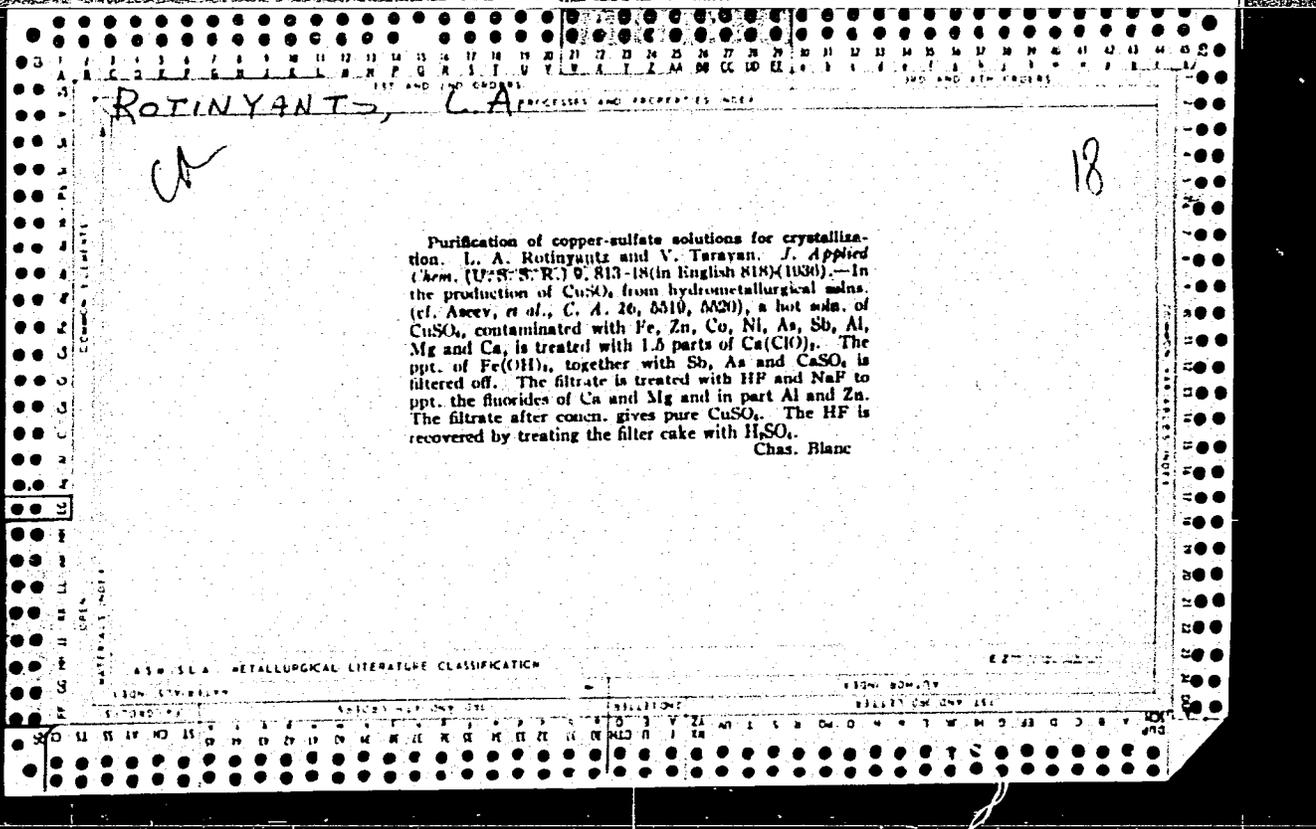
ROTINYANTS, A.A.

Investigating technological processes of the manufacture of prestressed bridge-span structures. Izv. AN Arm. SSR. Ser. tekhn. nauk 16 no.6:49-56 '63. (MIRA 17:1)

1. Rostovskiy institut inzhenerov zheleznodorozhnogo transporta.

ROTINYANTS, A.A.

Experiments in making prestressed concrete beams for bridges.  
Izv. AN Arm. SSR. Ser. tekhn. nauk 16 no.4:61-64 '63.  
(MIRA 16:10)

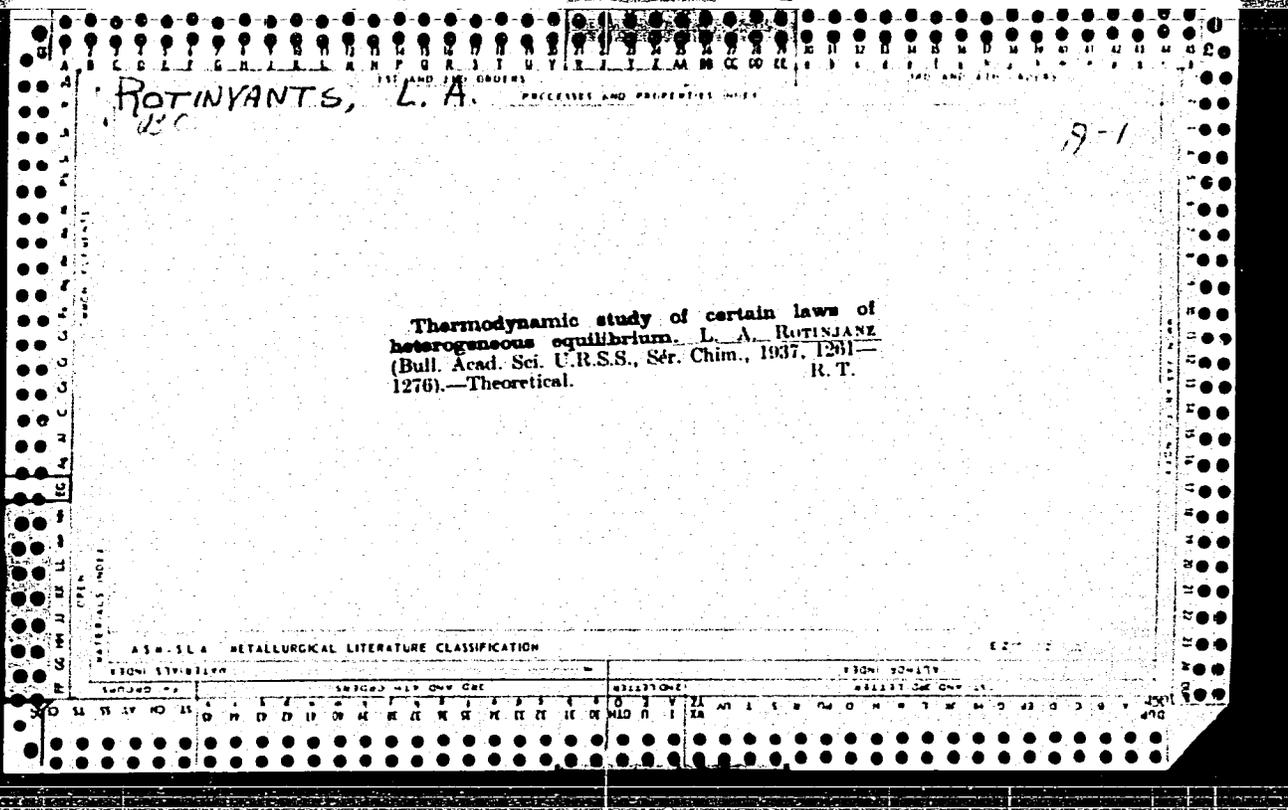


ROTINYANTS, C. A.

Carbon electrodes for electric furnaces. I. I. Melik-Gaikaryan and L. A. Rotinyants. Russ. 50,092, March 31, 1937. The electrodes made of carbon and tar are revolved during baking to permit the tar to fill by centrifu-

... THE PORES FORMED THROUGH THE VAPOR OF THE VOLATILE INGREDIENTS OF THE MASS.

850-33A METALLURGICAL LITERATURE CLASSIFICATION



ROTINYANTS, C.A.

Research on crystallization processes of fused basalts with chromite additions. L. A. Rotinyants and M. G. Manvelyan. *Mineral. Syr'* 1938, No. 1, 20-31; *Referat-kartel' Sibirskuliteratur* 5, (4) 3175 (1938). The effect of chromite addn. on the devitrification of fused basalt was studied by the isotherm method. Between 750 and 1050° only fine and coarse cryst. modifications were observed in basalt alone or with 1-2% chromite addn. When cooling between 725 and 950° fine cryst. modifications with the structure of Reaumur porcelain are formed with chromite addn. Chromite addn. greatly increase the devitrification of fused basalt. The temp. of the beginning of devitrification (formation of the first crystals) is reduced about 50° with chromite addn. The transition from fine cryst. modifications into coarse is at 850° for basalt alone; for basalt with chromite addn., 950°. The rate of devitrification is greater than the rate of transition of the fine cryst. modification into coarse. Chromite addn. reduce the devitrification of the coarse cryst. modification. The "spherulite" of Reaumur porcelain obtained by fusing basalt with chromite addn. is  $10^{-1} \mu$  that of hardened fine cryst. basalt without addn. The addn. of chromite raises the beginning of softening to 950°, in contrast with 750° for basalt alone. The devitrification temp. of basalt with chromite addn. lies below the softening temp.; by cooling to 725-900° a complete transition in structure of Reaumur porcelain is obtained without deformation. Chromite addn. increases acid stability. A chromite addn. of more than 30% is unsuitable.

M. V. Condule

19

ББК 55.4. МЕТАЛЛУРГИЧЕСКАЯ ЛИТЕРАТУРА. КЛАССИФИКАЦИЯ

ROTYANT'S, L. A.

Specific volumes of two coarsely dispersed binary systems: Al-S and Al-ZnO. L. A. Rotyants. *Zhur. Neorg. Khim.* 4, 830-34 (1957); cf. preceding abstr. — The sp. vols. were detd. for the powd., monodispersed systems Al-S and Al-ZnO for the compn. range 0-100% Al. The sp. vol. in coarsely dispersed systems is represented by the equation  $V = V_r + V_M$ , where  $V_r$  is the vol. of the solid phase and  $V_M$  is the intergrain vol.  $V_M$  serves as a quant. measure of the degree of openwork of coarsely dispersed binary systems. The exptl. data support the theoretical concepts discussed in the preceding abstr. J. Rovtar Leach

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ROTINYAN, L.A., dotsent.

Double cam mechanisms. Trudy T'biIZHT no.22:310-336 '50.(MLRA 9:11)  
(Cams)

CA ROTINYANTS, L. A.

2

Thermodynamic investigation of some laws of heterogeneous equilibrium in ternary systems. II. L. A. Rotinyants. *Izv. Sibirsk. Fiz.-Khim. Akad. Inst. Obshch. i Neorg. Khim., Akad. Nauk S.S.S.R.* 17, 64-72(1949); cf. C.A. 12, 3241<sup>4</sup>.—An analysis of triangular diagrams with parabolic binodal curves separating the homogeneous area from the heterogeneous area where separation into layers takes place. The concn. of a distributed substance in one phase, the length of conodes, and the angles they form with the side of a compn. triangle are related to the distribution coeff. and to the molar max. work of distribution through  $K_i = 1 - (H/x_i) \sin \theta$  and  $U_i = RT \ln \{1 - (H/x_i) \sin \theta\}$ , where  $K_i$  is the distribution coeff.,  $H$  is the length of the conode,  $\theta$  is the angle that it forms,  $x_i$  is the mole fraction in phase (') and  $U_i$  is the isothermal max. work of transferring 1 mol. of substance from phase (') to phase (''). Various types of diagrams (conodes parallel to side of triangle, parallel to one another, and arranged fanlike) are analyzed. In a 3-component system none of the components can have equal concn. or mole fractions in 2 existing liquid phases. M. Hoesch

1951

ROTYNYAN, L. A.

22357. ROTINYAN, L. A. Termodinamicheskoye issledovaniye nekotorykh zakanov geterogennogo ravnovesiya v trecnykh sistemakh. ch. 2 izvestiya sektora fiz.-khim. analiza (in t obeshchey i neorgan khimii im. kurnakova), T. XVII, 1949, s. 64-72.- bibliogr: s. 72.- Zh. i: izvestiya akad. nauk sssr-imen, seriya khim. No. 5, 1937

SO: LESTPIS' No. 30, 1949

S/119/63/000/002/006/014  
A004/A127

AUTHOR: Rotinyan, N.I.

TITLE: Self-compensating converters of alternating voltage into direct current

PERIODICAL: Priborostroyeniye, no. 2, 1963, 13 - 15

TEXT: The author gives a description of an original self-compensating converter of alternating voltage into direct current which has been developed at the NIITeplopribor and was granted the author's certificate No. 145934 of November 30, 1960, mentioned in the "Byulleten' izobreteniy", no. 7, 1962. He presents the block diagram of the device in which the ПД-09 (RD-09) reversible motor and a selsyn is used. Moreover, a description of another converter of alternating voltage into direct current is given, which has also been developed by NIITeplopribor but in the circuit of which neither a motor nor a selsyn is used. This second converter model is more simple in manufacture than the former type, but requires a more careful control and adjustment. There are 3 figures.

Card 1/1

ROTINYANTS, A.A.

Calculation of structural stresses in the beams of prestressed reinforced concrete bridge spans. Izv. AN Arm. SSR. Ser. tekhn. nauk 17 no.6:47-52 '64. (MIRA 18:3)

1. Rostovskiy institut inzhenerov zheleznodorozhnogo transporta.

ROTKHAMMEL', K. (DM2ABK) (Germanskaya Demokraticeskaya Respublika)

New amateur shortwave antennas. Radio no.11:20-23 N '65.  
(MIRA 18:12)

№ 1 K. H. A. R. D. I. C.

24(1) 23 PHASE I BOOK EXPLOITATION SOV/3352

Vserossiyskaya konferentsiya professorov i prepodavateley pedagogicheskikh institutov.

Primeneniye ul'traakustiki k issledovaniyu veshchestva; trudy konferentsii, vyp. 8 (Application of Ultrasonics in the Study of Matter; Transactions of a Conference, Nr. 8) Moscow, Izd. MOPI, 1959. 170 p. 1,000 copies printed.

Tech. Ed.: S. P. Zhitov.

PURPOSE: The book is intended for physicists, particularly those specializing in the field of ultrasonics.

COVERAGE: This is a collection of 12 articles dealing with problems of acoustics, ultrasonics, and molecular physics. References are given at the end of each article.

TABLE OF CONTENTS:

Nobzdev, V. F. Some New Problems in the Study of the Critical State by Acoustical Methods (Results of the International Colloquy in Paris, 1957)

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3

Application of Ultrasonics (Cont.)

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- Predvoditelev, A. S. Dispersion of Acoustic Waves in Rarefied Gases. Article I. 19
- Zipir, A. D., and V. F. Yakovlev. Pulse Method for Multiple Transformation of an Ultrasonic Signal in the Investigation of Liquid Media 63
- Ilgunas, V., and E. Yaronis. On the Theory of Interferometers With Variable and Constant Length 67
- Trelin, Yu. S. Some Results of Measurement of Ultrasonic Velocity in Cases by the Pulse Method 75
- Volarovich, M. P., and D. B. Balashov. Investigation of Ultrasonic Velocity in Nitrogen Under Pressures up to 1050 kg/sq cm 83
- Akhmetzyanov, K. G., and M. G. Shirkevich. Ultrasonic Velocity in Compressed Vapors of Ethyl Alcohol and Determination of Heat Capacities  $C_p$  and  $C_v$  93

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. Application of Ultrasonics (Cont.)

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Kudryavtsev, B. B. Fifth Seminar on Acoustics in Olsztyn

169

AVAILABLE: Library of Congress

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ROTKHOLTS, E.

Vibrating circle. p. 21.  
(Radio, Vol. 5, no. 12, 1956, Bulgaria)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 6, June 1957, Uncl.

ROTYNYANTS, L. A.

Theory of the structure of coarsely dispersed binary systems (quasi-solutions). L. A. Rotinyants. *Zhur. Neorg. Khim.* 4: 831-5 (1967). Coarsely dispersed binary systems the particles of which are greater than  $5 \times 10^{-4}$  cm. are discussed from the standpoint of their importance in the study of interparticle forces. J. Rovtar Leach

ROTKHOLTS, E.

Feeding without chokes. Ministry and Communication, #12:40:Dec. 54

ROT KIEWICZ, A

PHASE I BOOK EXPLOITATION POL/4356

Polskie towarzystwo matematyczne

Prace Matematyczne, Seria I. IV (Mathematical Transactions,  
Series I, vol. IV) Warsaw, Państwowe wyd-wo naukowe, 1960.  
140 p. 1,075 copies printed.

Editorial Board: Władysław Orlicz (Chief Ed.), Marcell Stark,  
(Deputy Chief Ed.), Adam Bielecki, Witold Bogdanowicz,  
Stanisław Gołąb, Jerzy Górski, Stanisław Hartman, Julian  
Musielak (Secretary), Zbigniew Semadeni, and Krzysztof  
Tatarkiewicz.

PURPOSE: This book is intended for mathematicians.

COVERAGE: This is a collection of 12 articles dealing with  
algebra, analysis, theory of numbers, probability theory,  
and geometry. Summaries in Russian and English or Russian  
and French are given after each article. No personalities  
are mentioned. References follow most of the articles.

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Mathematical Transactions (Cont.)

POL/2336

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AVAILABLE: Library of Congress

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ROTKIWICZ, A. (Warszawa)

On the numbers of the form  $\frac{(lk+1)^{lk+1}-1}{lk}$ ,  $\frac{(lk+3)^{lk+3}+1}{lk+2}$ . Rocz prace

matem 5:95-99 '61.

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in narrative giving pseudonyms numbers. both with 0000000000

100

ROTKIEWICZ, A.

On Lucas numbers with two intrinsic prime divisors. Bul Ac  
Pol mat 10 no.5:229-232 '62.

1. Institute of Mathematics, Polish Academy of Sciences, Warsaw.  
Presented by W. Sierpinski.

ROTKIEWICZ, A. (Warszawa)

On the properties of the expression  $a^n + b^n$ . Roczn. prace matem 6:1-20  
'6.

ROTKIEWICZ, A. (Warszawa)

On the properties of the expression  $a^n \pm b^n$ . Roczn. prace matem 6:1-20  
'61.

ROTKIEWICZ, A. (Warsaw)

On some generalizations of pseudoprime numbers. Colloquium  
mathem 9 no. 1:109-113 '62.

ROTKIEWICZ, A.

Rotkiewicz, A. Sur l'équation  $x^z - y^t = a^k$ , où  $|x - y| = a$ .  
*Ann. Polon. Math.* 3 (1956) 7-8. *Math.*

A theorem of G. D. Birkhoff and Vandiver [*Ann. of Math.* (2) 5 (1904), 173-180] states that if  $a, b, n$  are natural numbers,  $a > b$ ,  $(a, b) = 1$ ,  $n > 2$ , then  $a^n - b^n$  is divisible by at least one prime  $p$  such that  $p$  does not divide any of the integers  $a^r - b^r$  ( $r = 1, 2, \dots, n-1$ ); the case  $a=2, b=1, n=6$  provides the sole exception. From this the author concludes, by a very short and simple argument, that the equation  $x^z - y^t = a^k$ , where  $a$  is an integer, has no integer solutions  $x, y, z, t$  greater than 1, other than  $x=3, y=2, z=2, t=3$ , such that  $|x - y| = a$  and  $(x, y) = 1$ . If  $a=1$ , we arrive again at the theorem discussed in the preceding two reviews. *H. Halberstam (Exeter)*.

2

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ROTKIEWICZ, A.

PHASE I BACK INFORMATION

FOL/5753

Polskie Towarzystwo Matematyczne

Prace matematyczne (Mathematical Transactions) Warsaw, Państwowe Wydawn.  
1961, 1961. 146 p. (Series: Kts: Roczniki. Seria I., [no] 5)  
1,100 copies printed.

Editorial Board: Chief Ed.: Włodzisław Orlicz; Deputy Chief Ed.: Marceli  
Stank, Adam Bielecki, Witold Bogdanowicz, Stanisław Celiński, Jerzy Góral,  
Stanisław Marcin; Secretary: Julian Nosiński, Zbigniew Szmandł,  
Mieczysław Wataha.

INTROD: This book is intended for mathematicians.

CONTENTS: This is a collection of 14 articles on the theory of functions, theory  
of numbers, theory of series, functional analysis, differential equations, and  
their applications to hydrodynamics and thermodynamics. No personalities are  
mentioned. References follow each article.

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Mathematical Transactions

POL/5733

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11-6-61

ROTKIEWICZ, Krystyna, mgr.,inz.

Problems connected with the selfpurification of water. Gosp wodna  
22 no.2:81-82 F '62.

23513

P/022/60/000/012/002/004  
D235/D301

9,4310

AUTHOR: Rotkiewicz, P., Master of Engineering

TITLE: An instrument for measuring the coefficient of noise  
in junction transistors

PERIODICAL: Przegląd telekomunikacyjny, no. 12, 1960, 384

TEXT: The instrument was developed and designed at the Instytut tele-radiotechniczny (Tele-Radioengineering Institute). It is a laboratory instrument measuring the coefficient of noise as a function of frequency, source resistance and working point of the transistor. Measurement is based on a comparison between a standard noise potential generated in a noise generator and that of the transistor. The block diagram of the instrument is shown in Fig. 1. Standard noise potential is fed through an attenuator regulated between 0-100 dB, every 1 dB to the input circuit of the tested transistor, used as resistance amplifier. The block within the dotted line represents a selective voltmeter for noise potential. To measure the coefficient of noise at a given frequency one tunes

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D235/D301

An instrument for measuring...

the voltmeter to this frequency and adjusts  $\pi$ -attenuator to a value for which the noise potential fed into the transistor is doubled. Noting the deflection of the voltmeter, switch  $P_2$  is changed from position 1 to position 2, with the noise potential cut-off, thus connecting to the noise generator and the attenuator is again adjusted to obtain the same deflection of the voltmeter. Noise coefficient  $F$  can be expressed by  $F [dB] = A [dB] - N [dB]$  where  $A [dB]$  - constant value, expressed in decibels corresponding to the particular value of  $R_0$   $N [dB]$  - attenuation of  $\pi$ -attenuator expressed in decibels. The specifications of the instrument are:

Frequency range: 100 k/c - 20 M/c; Useful frequency band of the

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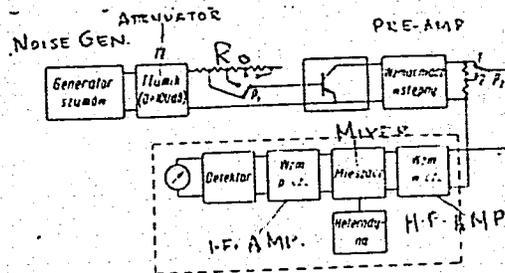


Fig. 1

ROTKIEWICZ, Pawel

Modified Flack test. Acta physiol. polon. 5 no.4:563-565 1954.

1. Z Zakladu Fizjologii Instytutu Naukowego Kultury Fizycznej w  
Warszawie.

(RESPIRATION, function tests.

Flack's test, modified technic)

L 34455-66

ACC NR: AP6026192

SOURCE CODE: PO/0022/65/000/001/0017/0022

AUTHOR: Dabrowski, Krzysztof (Master engineer); Rotkiewicz, Piotr (Master engineer)

ORG: none

27  
B

TITLE: Survey of modern designs of transistorized FM radio receivers

SOURCE: Przegląd elektrotechniczny, no. 1, 1965, 17-22

TOPIC TAGS: FM receiver, transistorized circuit

ABSTRACT: The article gives a description of the circuitry and the operating characteristics of four radio receiver set models. Three of them are of the AM/FM type, namely the "Coupe" by Philips Co, the automobile receiver by RCA and the automobile receiver by Amperex Electronic Corp; the fourth model is a UHF FM receiver by Texas Instruments. The common features of all these transistorized models are discussed and their differences are pointed out. The use of mesa transistors for the UHF component is mentioned. The UHF tuner consists usually of two stages, sometimes of three stages. In most European models all input stages are untuned and matched for passing a wide band, while most American have all three stages tuned: input, output and the heterodyne circuit. Orig. art. has: 4 figures. [JFRS]

SUB CODE: 09 / SUBM DATE: none

Card 1/1 20

UDC: 621.396.62

09/6 1740

DABROWSKI, Krzysztof, mgr inż.; ROTKIEWICZ, Piotr, mgr inż.

Review of recent designing solutions of FM radio transistor receivers. Przegl telekom 37 no.1:17-22 Ja '65.

ROTKIEWICZ, Piotr, mgr. inż.

Tunnel diode tuned amplifier. Prace Inst. teletechn. 6 no.4:  
3-36 '62

1. Instytut Tele- i Radiotechniczny, Warszawa

ROTKIEWICZ, W

621.317.7 : 621.389.832  
2495. NOISE LEVEL METER. W. Rotkiewicz  
Prace Inst. Łączności, Vol. 3, No. 1, 41-51 (1958). In Polish.  
Describes a new type of noise level meter and its characteristic  
properties. The block diagram and the separate stages are dis-  
cussed. The problem of internal noise and the adoption of a new  
input circuit having a very low level of internal noise is also dis-  
cussed. This circuit contains a multiple high-pass filter of the RC  
type. A method of calibration of a voltage-measuring instrument by  
means of a standard LCR resonant circuit is described. A

3

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ROTKIEWICZ, W.

A scientific conference in Llnenau and service against interference in the German Democratic Republic.

p. 181 (Przegląd Telekomunikacyjny) Vol. 30, no. 6, June 1957, Warszawa, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958